

**DECLARATION (37 CFR 1.63) AND POWER OF ATTORNEY**

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name, and

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled NOVEL G PROTEIN-COUPLED RECEPTOR, the specification of which

- ☐ is attached hereto.
- ☐ was filed on as Application No. and was amended on .
- ☒ was filed on 16 December 1998 as PCT International Application No. SE98/02348 and was amended under PCT Article 19 on , if applicable.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 CFR 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119, of any foreign application(s) for patent or inventor's certificate or of any PCT International Application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application for patent or inventor's certificate or any PCT International Application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application on which priority is claimed:

<u>Application Serial No.</u>	<u>Country</u>	<u>Filing Date (Day/Month/Year)</u>	<u>Priority Claimed (Yes/No)</u>
9704836-7	Sweden	22 December 1997	Yes

I hereby claim the benefit under Title 35, United States Code, Section 120, of any United States application(s) or PCT International Application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application(s) in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56, which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

<u>Application Serial No.</u>	<u>Filing Date</u>	<u>Status (Patented, Pending, Abandoned)</u>
-----------------------------------	--------------------	--------------------------------------------------

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint Robert A. Armitage (Registration No. 27,417), Rodney M. Anderson (Registration No. 31,939), Steven R. Borgman (Registration No. 33,160), Valerie S. Boutwell (Registration No. 36,754), W. Scott Brown (Registration No. 32,968), Leslie J. Clark (Registration No. 34,800), Laura A. Crowe (Registration No. 35,850), G. Harvey Dunn, III (Registration No. 31,102), Barry E. Engel (Registration No. P-37,127), A.H. Evans (Registration No. 22,032), Kevin M. Hart (Registration No. 36,823), William L. LaFuze (Registration No. 27,205), Stephen L. Levine (Registration No. 33,413), Alan W. Lintel (Registration No. 32,478), J. Clark Martin (Registration No. 26,198), Peter E. Mims (Registration No. 32,429), W. Ronald Robins (Registration No. 26,222), Michael A. Sanzo (Registration No. 36,912), Jerry R. Selinger (Registration No. 26,582), Jack R. Springgate (Registration No. 17,385), Alan R. Thiele (Registration No. 30,694), Darrell E. Warner (Registration No. 36,046), and Karen Tucker White (Registration No. 34,267), all registered to practice before the Patent and Trademark Office as my attorneys with full power of substitution and revocation to prosecute this application and all divisions and continuations thereof and to transact all business in the Patent and Trademark Office connected therewith and request that all correspondence and telephone communications be directed to the following person(s) at the mailing address and telephone number hereafter given:

Name	:	Robert A. Armitage
Registration No.	:	27,417
Address	:	Vinson & Elkins L.L.P.; Suite 800 1455 Pennsylvania Avenue, N.W. Washington, D.C. 20004-1008
Telephone No.	:	(202) 639-6692

**Inventor's Signature** 

**Date** Jan 07/99

Full name of sole or first inventor: Sultan Ahmad

Residence Address: Quebec, Canada

Citizenship: Indian

Post Office Address: Astra Research Centre Montreal, 7171 Fredrick-Banting, St Laurent, Quebec H4S 1Z9, Canada

**Inventor's Signature** 

**Date** Jan 07/99

Full name of second joint inventor: Denis Banville

Residence Address: Quebec, Canada

Citizenship: Canadian

Post Office Address: 595 Lajeunesse, Ste-Dorothee, Quebec H7X 3K4, Canada

**Inventor's Signature** 

**Date** Jan 07/99

Full name of third joint inventor: Yves Fortin

Residence Address: Quebec, Canada

Citizenship: Canadian

Post Office Address: 2985 Avenue Douglas, Montreal, Quebec H3R 2E2, Canada

**Inventor's Signature** 

**Date** Jan 7, 1999

Full name of fourth joint inventor: Paola Lembo

Residence Address: Quebec, Canada

Citizenship: Canadian

Post Office Address: Astra Research Centre Montreal, 7171 Fredrick-Banting, St Laurent, Quebec H4S 1Z9, Canada

**Inventor's Signature**

Dajan O'Donnell

**Date**

Jan 6 1999

Full name of fifth joint inventor: Dajan O'Donnell

Residence Address: Quebec, Canada

Citizenship: Canadian

Post Office Address: Astra Research Centre Montreal, 7171 Fredrick-Banting, St Laurent,  
Quebec H4S 1Z9, Canada

**Inventor's Signature**

Shi-Hsiang Shen

**Date**

Jan 7. 1999

Full name of sixth joint inventor: Shi-Hsiang Shen

Residence Address: Quebec, Canada

Citizenship: Canadian

Post Office Address: 161 Charwell, Crescent, Beaconsfield, Quebec H9W 1C2, Canada



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

SEPTEMBER 26, 2003

FITCH, EVEN, TABIN & FLANNERY  
MICHAEL A. SANZO  
1801 K STREET, N.W.  
SUITE 401L  
WASHINGTON, D.C. 20006-1201



\*700045459A\*

**UNITED STATES PATENT AND TRADEMARK OFFICE**  
**NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT**

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 09/24/2003

REEL/FRAME: 014000/0171  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).  
~~OFFICE OF PUBLIC RECORDS~~

ASSIGNOR:  
ASTRAZENECA CANADA INC.

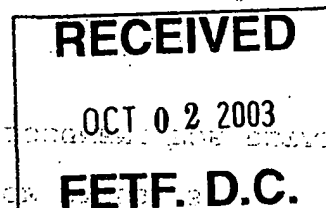
DOC DATE: 09/24/2003

ASSIGNEE:  
NATIONAL RESEARCH COUNCIL OF  
CANADA  
1200 MONTREAL ROAD  
BLDG. M-58  
OTTAWA, ONTARIO K1A 0R6, CANADA

SERIAL NUMBER: 09254227  
PATENT NUMBER:

FILING DATE: 03/03/1999  
ISSUE DATE:

SHAREILL COLES, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



RECORDATION NUMBER: 09254227

RECORDATION NUMBER: 09254227

FITCH EVEN  
09/24/2003  
700045459

002

P)RM PTO-15M (Rev. 6-93)

## RECORDATION FORM COVER SHEET

U.S. DEPARTMENT OF COMMERCE

OBM No. 0651-8031 (exp. 4/94)

## PATENTS ONLY

Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

AstraZeneca Canada Inc.

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 2. Name and address of receiving party(ies):

Name: National Research Council of Canada

Internal Address: \_\_\_\_\_

Street Address: 1200 Montreal RoadBlgd. M-58City/State/ZIP: Ottawa, Ontario K1A 0R6CANADAAdditional name(s) & address(es)  
attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other \_\_\_\_\_Execution Date: September 24, 2003

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

09/254,227

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Michael A. Sanzo

Internal Address: \_\_\_\_\_

Street Address: Fitch, Even, Tabin & Flannery  
1801 K Street, N.W.  
Suite 401LCity/State/ZIP: Washington, D.C. 20006-1201

## 6. Total number of applications and patents involved:

17. Total Fee (37 C.F.R. § 3.41) ..... \$ 40.00☐ Enclosed☒ Authorized to be charged to deposit account

## 8. Deposit account number:

06-1135 Under Order No. 7567/73162

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*Michael A. Sanzo  
Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments, and document:

3Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

FORM6-03.WP5

CH \$40.00 06-1135 09254227

## **Assignment to the National Research Council of Canada**

Applicant(s): Ahmad, *et al.*  
Appl. No.: 09/254,227  
Filed: March 3, 1999  
For: **G Protein-Coupled Receptors from the Rat and Human** (as amended)

AstraZeneca Canada Inc., a corporation of Canada, having a place of business at 1004 Middlegate Road, Mississauga, Ontario, L4Y 1M4, Canada (hereinafter "AstraZeneca Canada") is owner of right, title and interest in the inventions and discoveries (hereinafter "Inventions") described in the above-identified United States application (hereinafter "Application") by virtue of an Assignment executed by the inventors and recorded in the United States Patent and Trademark Office on January 19, 2000 at Reel 10414, Frame 0583, and a merger document recorded in the United States Patent and Trademark Office on October 12, 2000 at Reel 011217, Frame 0591.


In view of valuable consideration, receipt of which is hereby acknowledged, AstraZeneca Canada hereby assigns and transfers unto the National Research Council of Canada (hereinafter "NRC"), an agency of the Government of Canada, located at 1200 Montreal Road, Bldg. M-58, Ottawa, Ontario, K1A 0R6, Canada, its successors and assigns, AstraZeneca Canada's entire right, title and interest in the Inventions, the Application and all related applications (including all divisions, reissues, continuations, and extensions thereof) and all counterparts in other countries, and any and all Letters Patent (and certificates of invention or similar certificates) (hereinafter "Patents") which may be granted based upon the Inventions or the Application or related applications or counterparts in other countries, said transfer and assignment being applicable throughout the world. AstraZeneca Canada authorizes and requests officials of patent offices in any and all countries of the world to issue



any and all of the Patents, when granted, to NRC, its successors and assigns, as the assignee of AstraZeneca Canada's entire right, title, and interest in and to the same.

ASTRAZENECA CANADA INC.

Date 24 Sept 2003

By   
Bo Hasslev  
Director IP Finance and IS



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

JANUARY 09, 2001

PTAS

PILLSBURY MADISON & SUTRO  
MICHAEL A. SANZO  
EAST TOWER-NINTH FLOOR  
1100 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005-3918



\*101513462A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 10/12/2000

REEL/FRAME: 011217/0591 -95  
NUMBER OF PAGES: 5

BRIEF: MERGER (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ASTRA PHARMA INC.

DOC DATE: 12/22/1999

ASSIGNEE:

ASTRAZENECA CANADA INC.  
1004 MIDDLEGATE ROAD  
MISSISSAUGA, ONTARIO, CANADA

L4Y 1M4

SERIAL NUMBER: 09254227  
PATENT NUMBER:

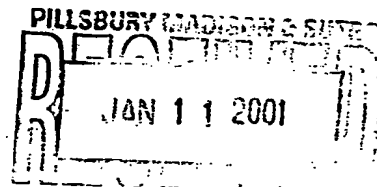
FILING DATE: 03/03/1999  
ISSUE DATE:

SERIAL NUMBER: 09341016  
PATENT NUMBER:

FILING DATE: 07/01/1999  
ISSUE DATE:

SERIAL NUMBER: 09554326  
PATENT NUMBER:

FILING DATE: 05/12/2000  
ISSUE DATE:



011217/0591 PAGE 2

SERIAL NUMBER: 09029633  
PATENT NUMBER:

FILING DATE: 03/05/1998  
ISSUE DATE:

SERIAL NUMBER: 09555576  
PATENT NUMBER:

FILING DATE:  
ISSUE DATE:

SERIAL NUMBER: 09555579  
PATENT NUMBER:

FILING DATE:  
ISSUE DATE:

SERIAL NUMBER: 09555580  
PATENT NUMBER:

FILING DATE:  
ISSUE DATE:

SERIAL NUMBER: 09555575  
PATENT NUMBER:

FILING DATE: 06/01/2000  
ISSUE DATE:

SERIAL NUMBER: 09029468  
PATENT NUMBER: 6153626

FILING DATE: 03/03/1998  
ISSUE DATE: 11/28/2000

SERIAL NUMBER: 08836830  
PATENT NUMBER: 6130222

FILING DATE: 04/24/1997  
ISSUE DATE: 10/10/2000

SERIAL NUMBER: 09460722  
PATENT NUMBER:

FILING DATE: 12/14/1999  
ISSUE DATE:

SERIAL NUMBER: 09460723  
PATENT NUMBER:

FILING DATE: 12/14/1999  
ISSUE DATE:

SERIAL NUMBER: 08981700  
PATENT NUMBER:

FILING DATE: 01/07/1998  
ISSUE DATE:

ANTIONE ROYALL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

MRD

11-13-2000

FORM T-1594 (Rev. 5-97)  
ORM No. 0651-0011 (exp. 4-94)

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

101513462

To the Honorable Commissioner of Patents and Trademarks, I enclose the original documents or copy thereof.

## 1. Name of conveying party(ies):

Astra Pharma Inc.

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 2. Name and address of receiving party(ies):

Name: AstraZeneca Canada Inc.

Internal Address: \_\_\_\_\_

Street Address: 1004 Middlegate Road

City/State/ZIP: Mississauga, Ontario L4Y 1M4

CANADA

Additional name(s) & address(es)  
attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☐ Assignment ☒ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: December 22, 1999

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

B. Patent No.(s)

SEE LIST ATTACHED

Additional numbers attached? ☒ Yes ☐ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Michael A. Sanzo

Internal Address: \_\_\_\_\_

Street Address: Pillsbury Madison & Sutro  
East Tower - Ninth Floor  
1100 New York Avenue, N.W.

City/State/ZIP: Washington, D.C. 20005-3918

## 6. Total number of applications and patents involved:

13

7. Total Fee (37 C.F.R. § 3.41) \$ 520.00

- ☒ Enclosed  
☐ Authorized to be charged to deposit account

## 8. Deposit account number:

(Attach duplicate copy of this page if paying by deposit account)

8/2000 MTHAI1 00000020 09254227

DO NOT USE THIS SPACE

C:581

520.00 UP

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Michael A. Sanzo

Name of Person Signing

Signature

Date

October 12, 2000

Total number of pages including cover sheet, attachments, and document:

6

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

FORM6-03.WP5

**List of Applications on Which the Name of the Assignee Should Be  
Changed from Astra Pharma Inc. to AstraZeneca Canada Inc.**

09/254,227

09/341,016

09/554,326

09/029,633

09/555,576

09/555,579

09/555,580

09/555,575

09/029,468

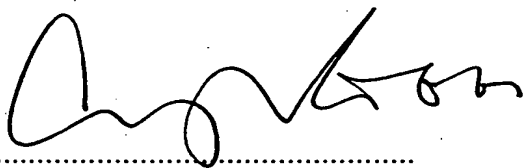
08/836,830

09/460,722

09/460,723

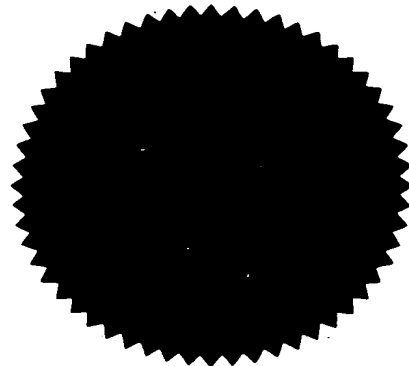
08/981,700

I **ANTHONY JANION GIBBS** of Wilmslow, Cheshire, England, Notary Public duly authorised admitted and sworn and practising within the United Kingdom of Great Britain and Northern Ireland **do hereby certify** that the photostat matter hereto annexed is a true copy of a document the original of which was produced to me at Macclesfield, Cheshire, England, this 22<sup>nd</sup> day of June in the year two thousand.



**Anthony Janion Gibbs**

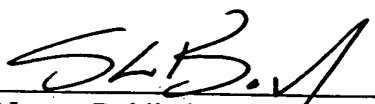
Notary Public

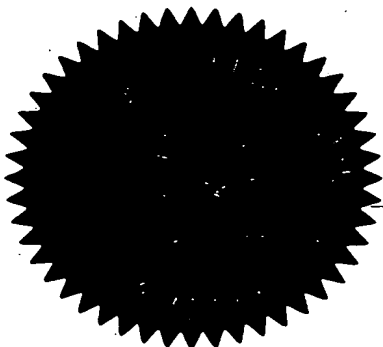


CANADA )  
PROVINCE OF ONTARIO )  
CITY OF TORONTO )  
TO WIT: )


I, STEPHEN DOUGLAS BODLEY, a Notary Public in and for the Province of Ontario, by Royal Authority duly appointed, residing in the City of Toronto in the said Province DO HEREBY CERTIFY that the paper writing hereto annexed, the first page of which is stamped with an impression of my seal, is a true and correct photostatic copy of documents produced and shown to me out of custody of Blake, Cassels & Graydon LLP, Toronto, Ontario and purporting to be the original Certificate and Articles of Amendment of **ASTRAZENECA CANADA INC.** issued by the Ministry of Consumer and Commercial Relations and dated December 31, 1999, the said photostatic copy having been compared by me, page for page, with the said original documents, an act whereof being requested I have granted the same under my hand and notarial seal of office to serve and avail as occasion shall or may require.

DATED at Toronto this *13<sup>th</sup>* day of *March*, 2000.

  
A Notary Public in and for  
the Province of Ontario





 Ministry of  
Consumer and  
Commercial Relations

# CERTIFICATE

This is to certify that these articles are effective on

DECEMBER 31 DÉCEMBRE, 1999

**Ministère de  
la Consommation  
et du Commerce**

# CERTIFICAT

Ceci certifie que les présents  
statuts entrent en vigueur le

Ontario Corporation Number  
numéro de la société en Ontario

**77196**

1.

ent D. 167

Director / Directeur  
Business Corporations Act / Loi sur les sociétés par actions

**ARTICLES OF AMENDMENT  
STATUTS DE MODIFICATION**

**Form 3  
Business  
Corporations  
Act**

### Formule 3 loi sur les sociétés par actions

- 1. The name of the corporation is:**

**Dénomination sociale de la société:**

[illegible]

- 2. The name of the corporation is changed to (if applicable):**

**Nouvelle dénomination sociale de la société (s'il y a lieu):**

[illegible]

- 3. Date of incorporation/amalgamation:**

**Date de la constitution ou de la fusion:**

**1954 JUNE 28**

(Year, Month, Day)  
(année, mois, jour)

4. The articles of the corporation are amended as follows:

**Les statuts de la société sont modifiés de la façon suivante.**

**To change the name of the Corporation to:**

**ASTRAZENECA CANADA INC.**



5. The amendment has been duly authorized as required by Sections 168 & 170 (as applicable) of the Business Corporations Act.

*La modification a été dûment autorisée conformément aux articles 168 et 170 (selon le cas) de la Loi sur les sociétés par actions.*

6. The resolution authorizing the amendment was approved by the shareholders/directors (as applicable) of the corporation on

*Les actionnaires ou les administrateurs (selon le cas) de la société ont approuvé la résolution autorisant la modification le*

**1999 DECEMBER 22**

(Year, Month, Day)  
(année, mois, jour)

These articles are signed in duplicate.

*Les présents status sont signés en double exemplaire.*

**ASTRA PHARMA INC.**

(Name of Corporation)  
(Dénomination sociale de la société)

By:/Par.

(Signature)  
(Signature)

(Description of Office)  
(Fonction)



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MARCH 01, 2000

PTAS

VINSON & ELKINS LLP  
MICHAEL A. SANZO  
2300 FIRST CITY TOWER  
1001 FANNIN  
HOUSTON, TX 77002-6760



\*101257417A\*

**RECEIVED**

MAR 13 2000

Docket Sec.  
Vinson & Elkins

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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RECORDATION DATE: 01/19/2000

REEL/FRAME: 010414/0583  
NUMBER OF PAGES: 4

BRIEF: CORRECTIVE ASSIGNMENT TO CORRECT THE NAME OF THE ASSIGNOR, FILED ON 4-9-99, RECORDED ON REEL/FRAME 9877/0531 ASSIGNOR HEREBY CONFIRMS THE ASSIGNMENT OF THE ENTIRE INTEREST.

ASSIGNOR:  
SHI-HSIANG, SHEN

DOC DATE: 03/23/1999

ASSIGNOR:  
AHMAD, SULTAN

DOC DATE: 03/16/1999

ASSIGNOR:  
FORTIN, YVES

DOC DATE: 03/16/1999

ASSIGNOR:  
BANVILLE, DENIS

DOC DATE: 03/16/1999

ASSIGNOR:  
O'DONNELL, DAJAN

DOC DATE: 03/16/1999

ASSIGNOR:  
LEMBO, PAOLA

DOC DATE: 03/16/1999

010414/0583 PAGE 2

ASSIGNEE:

ASTRA PHARMA INC.  
1004 MIDDLEGATE ROAD  
MISSISSAUGA, ONTARIO L4Y 1M4,  
CANADA

SERIAL NUMBER: 09254227  
PATENT NUMBER:

FILING DATE: 03/03/1999  
ISSUE DATE:

ANTIONE ROYALL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

03-01-2000



101257417

FORM PTO-1594 (Rev. 6-93)

U.S. DEPARTMENT OF COMMERCE

OBM No. 0651-0011 (exp. 4/94)

Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Shen Shi-Hsiang, Sultan Ahmad, Yves Fortin, Denis Banville,  
Dajan O'donnell and Paola LemboAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

1-19-2000

## 3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: March 16 and 23, 1999

## 2. Name and address of receiving party(ies):

Name: Astra Pharma Inc.

Internal Address: \_\_\_\_\_

Street Address: 1004 Middlegate Road  
Mississauga, Ontario L4Y 1M4City/State/ZIP: CanadaAdditional name(s) & address(es)  
attached? ☐ Yes ☒ No

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

09/254,227

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Michael A. Sanzo

Internal Address: \_\_\_\_\_

Street Address: Vinson & Elkins L.L.P.  
2300 First City Tower  
1001 FanninCity/State/ZIP: Houston, TX 77002-6760

## 6. Total number of applications and patents involved:

1

7. Total Fee (37 C.F.R. § 3.41) ..... \$ \_\_\_\_\_

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To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

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SignatureJanuary 18, 2000  
Date

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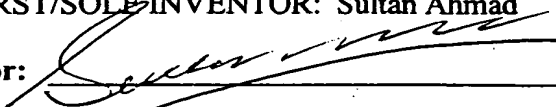
ASSIGNMENT TO ASTRA PHARMA Inc

**Title:** NOVEL G PROTEIN-COUPLED RECEPTOR  
**Inventors:** Sultan Ahmad, Denis Banville, Yves Fortin, Paola  
Lembo, Dajan O'Donnell and Shi-Hsiang Shen  
**U.S. Appl. No:**  
**U.S. Filing Date:**  
**Execution Date of Application:**

As a below-named inventor, I hereby declare that:

My post office address is as stated below under my signature and I am named as inventor of the inventions or discoveries (herein INVENTIONS) as described in the patent application (herein APPLICATION) identified above. In view of valuable consideration, receipt thereof is hereby acknowledged, I do hereby assign and transfer unto ASTRA Pharma Inc., a corporation of Canada having a place of business at 1004 Middlegate Road, Mississauga, Ontario L4Y 1M4, Canada, its successors and assigns, my entire interest in and the full and exclusive right to the INVENTIONS, the APPLICATION and all related applications (including all divisions, reissues, continuations, and extensions thereof) and all counterparts in other countries, and any and all Letters Patent (and certificates of invention or similar certificates) (herein PATENTS) which may be granted based upon the INVENTIONS or the APPLICATION or related applications or counterparts in other countries; said transfer and assignment being applicable throughout the world. I hereby authorize and request officials of patent offices in any and all countries of the world to issue any and all of the PATENTS, when granted, to ASTRA Pharma Inc., its successors and assigns, as the assignee of my entire right, title, and interest in and to the same. I agree that I will communicate to ASTRA Pharma Inc., or its representatives, any facts known to me respecting the invention; testify in any legal proceedings; sign all lawful papers; execute all divisional, continuation, substitution, renewal, and reissue applications; execute all necessary assignment papers to cause any and all of the PATENTS to be issued to ASTRA Pharma Inc.; make all rightful oaths; and generally do everything possible to aid ASTRA Pharma Inc., its successors and assigns, to obtain and enforce proper protection for the INVENTION in any and all countries throughout the world.

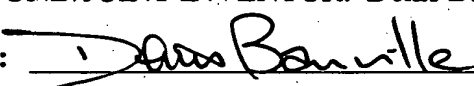
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Date: Mar 16/99

FULL NAME OF SECOND/JOINT INVENTOR: Denis Banville

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Date: 16/3/99

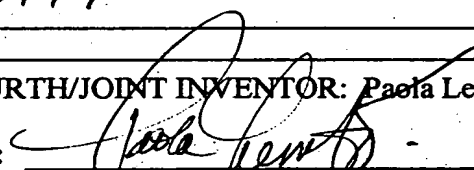
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